SPACE
Pacific

Membership Notes:

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DEALER/INSTALLER Members Warned to Exercise "Care"

Members attending the November SPACE Regional Meetings (Christchurch November 16, Taupo November 17) heard a detailed discussion of the status of Copyright within New Zealand presented by John G. Rutherford of Civic Enterprises (operator of cable systems in Greymouth and Gisborne). John is also a lawyer skilled in the matters of programme rights legislation on an international basis.

Paramount in the hour long presentation was Rutherford's warning that all literature produced by a system seller/installer and all invoicing to customers should contain language similar to the following:

"This satellite television system is sold with the understanding that the equipment seller/installer takes no responsibility for the way this equipment is used by the purchaser. Please understand that within the universe of satellite transmissions available to you with this system there will be some programming which is intended only for specified recipients. Your accessing of such 'restricted programming' is an aspect of owning this system which the buyer assumes full responsibility for and the seller makes no promises nor claims for the scope of transmissions which you may receive with this equipment."

The concern is that many facets of the (NZ) 1994 Copyright Act are written in terms which require further defining and until there have been "cases" before the New Zealand Copyright Tribunal to clarify these uncertain areas the best course of action is caution. Rutherford believes:

1) Free to air transmissions, regardless of origin, are legally accessible by home dish installers and viewers;

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2) Whether a transmission is analogue or MPEG (digital) is not relevant as long as there has been (a) no notice of copyright protection broadcast, or, (b) no attempt to enforce conditional access through some form of encryption.

A "Notice of copyright protection" would consist of an English language statement either appearing on the screen and/or in the audio portion stating that access to the programming was restricted in some way. Such announcements must be frequent enough to be "understood within normal viewing habits." A statement buried in a station's late night sign-off sequence, for example, would not constitute "adequate notice." The only service that comes even close to meeting this criteria is NHK which does from time to time transmit a visual statement warning the (PAS-2) feed is not intended for redistribution via cable or other networks. However this announcement appears so infrequently as to be ineffective as a legal copyright notice.

The transmissions of EM TV, now largely in Videocrypt format, is an example of a service that has made a "statement" concerning reception and redistribution. Those portions of the EM TV broadcast day which are not encrypted remain free to air; those portions using Videocrypt are in theory removed from the viewing choice of yourself or a customer you have sold a dish to. However, the ready availability of Videocrypt decoders (at least in New Zealand where the same decoder is utilised by Sky Networks) and the failure of EM TV to require use of a "smart card" along with the decoder raises serious questions about their implementation of encryption.

Rutherford makes the point that if you are an installer/dealer in this industry and you in any way assist a customer to obtain a decoder for a service which is not intended by the programmer for reception (use) in New Zealand, you are in some jeopardy. "Assistance" would include acquiring and passing on to your customer a decoder or participating in arranging for such a decoder for your customer (such as making a telephone call on the customer's behalf to a decoder source located outside of New Zealand). If you assist the customer to acquire programming to which he or she is not entitled under the New Zealand Copyright Act of 1994, then you are also a participant in the illegal act.

Now - bringing suit against you (or someone who is involved in such an activity) is not a neatly defined system. The appropriate body to hear the charges would be the New Zealand Copyright Tribunal. The party that the 1994 Act empowers to bring such a complaint is the programmer. It is unlikely that EM TV, for example, would go to the trouble of bringing such a suit in New Zealand against an individual - unless it was trying to make a statement that would put others on notice. Rutherford believes that under some circumstances (not clearly defined) that a New Zealand programme user (such as Sky or Television New Zealand) might be able to bring a suit on their own - provided they were able to show that some use of decoders or other restricted viewing hardware were receiving services which only they were entitled to receive.

SPACE's position in all of this is that we do not promote nor condone the importation of hardware or software which allows someone to receive programming which is not intended for distribution within an area. When there are questions concerning the real legal status of a service (such as BBC World for which Television New Zealand claims total rights) we take the position that until we have been shown "proof" of the claimed exclusive rights we assume that no such rights actually exist. This makes the programmer (TVNZ in our example) either prove their rights or by failure to do so to give up their claim to such rights. As a dealer/installer we suggest you adopt a similar procedure: Short of a statement that is clean and beyond misinterpretation, assume programming not specifically "marked" as restricted is in fact free-to-air and advise your customers accordingly.

STUDY Of Antenna Restrictions

Out of the November SPACE Regional Meetings came the realisation that while some District Councils have adopted very restrictive regulations affecting the size, placement (and even colour) of "satellite dish antennas," others are to date not interested in regulating this area or have established guidelines for the installation of dishes.

What is now underway (as time permits) is a detailed study Council District by Council District of the precise steps required in each geographic region of the country. The goal is to first assimilate the data and verify with each District Council the verified data into reference booklet form, and then to formulate a national plan to seek legislation in Parliament to "unify" the regulations that pertain to

satellite dish installations. As a general statement, there are "pockets" of great difficulty (typically in the larger cities and in particular in some metropolitan suburbs) with dish installations when the dishes exceed some minimal size such as 60cm (90cm in other areas).

Most of the arguments for new legislation will be based upon constitutional arguments, for example:

1) If antenna size restricts access because of technical factors and creates a situation where only Ku-band systems are practical, does this not create the same sort of censorship as banning certain books from a library?

2) If antenna size and placement is believed to be an environmental issue, why not also colour, size and placement of lawn furniture, bar-b-que, stored boats and trailers? What sets satellite antenna into a classification of their own? Or is this, in fact, actually an argument used to hide the real agenda which is denied access to foreign origin satellite TV services?

A legislative programme will involve the careful creation of lobbying and educational materials for all members of parliament, the "courting" of a sponsor for the proposed legislation, and a ground swell effort from members and "friends of satellite TV" on a national basis. What are your thoughts?

ADDITIONAL DETAILS OF (NZ) Sky Network Satellite Plans

On January XX New Zealand terrestrial pay TV service provider Sky Network released a public statement confirming what SatFACTS and Coop's Technology readers have know since August; controlling interest in Sky (80%) has been acquired by Rupert Mudoch controlled INL (Independent News Limited). AND - Sky will launch a satellite direct service to homes and commercial establishments throughout New Zealand with a target date of April 1 (1997). The satellite service details are as follows:

1) Optus B1, TR5 vertical using 1/2 transponder format (12,505-12,559 RF or 1205-1259 IF); the centre frequency on TR5 is to be determined;

2) A single channel will be initially distributed encoded with the same Videocrypt system as Sky utilises for its present terrestrial systems -

a) The SV3A model decoder (same as used for EM TV) will be employed but a smart card (subscription) will also be required

1) Sky has experienced very limited "hacking" of the Videocrypt system (they claim "none" but the present "series 3" smartcard being utilised was hacked in Europe more than four years ago and various hacking routines have appeared on Internet distributed hacker bulletin boards including the "Omi-God" program first distributed 24 months ago). Whether the system is hacked or not is a moot point since the use of the Videocrypt analogue system is likely to be only until the October-December 1997 time frame when the service will convert to an MPEG stream (see what follows).

3) The single channel will be the Sky Sport service which combines a significant day portion from American network ESPN and combines that with NZ interest Cricket, Rugby and other sport purchased from sources other than ESPN. This single channel is being put up in encrypted analogue because MPEG equipment (both the receiving and transmitting) cannot be available until "late in 1997."

a) At that time the service will expand to at least five full-time programme channels with an ultimate goal of ten or more. An MPEG provider has not been selected at this time although with INL taking over Sky control and INL controlled by Murdoch, it is at least likely that past Murdoch purchasing alliances will be a consideration for the ultimate selection of MPEG IRDs (read that Pace units will have an inside shot at being selected). Scientific Atlanta has been selected (subject to approval by INL) for the uplink portion but do not read into this anything relating to PowerVu; S-A is supplying the uplink transmitter(s) and dishes and at this point is not chosen for the MPEG portion of the uplink.

4) The sport channel is first because of political considerations. When Sky cornered the New Zealand Rugby and Cricket television rights, taking these sports largely off of free to air national television, regions of New Zealand outside of the Sky (UHF transmitter) coverage were very upset. Regions that lost these sports quickly created political unrest for Sky, Television New Zealand, and the government. By putting these events nation-wide (including the Chatham Islands) on satellite Sky

will begin to get back on the good side of politicians who are sick and tired of hearing complaints from their constituents.

a) Sky expects between 10,000 and 15,000 Ku-band installations will be installed by the end of the analogue encryption period (late 1997). A quantity of SV3A decoders to support this projection will be available.

b) We cannot confirm the satellite user dish package selling price nor hardware configuration at this time but believe that:

1) Satellite customers will be charged approximately $650 including installation for a dish that will be 60cm in size in the best case and up to 2m in size in the weakest signal level case (Chatham Islands). This will include a "cheap - almost disposable - analogue receiver" with suitable baseband video output for the SV3A and a quality digital-rated LNB(F) which will allow a later changeout from the analogue package (analogue receiver + SV3A) to MPEG IRD when the service switches to digital. If the satellite dish + LNBF + analogue receiver + SV3A + cables + installation exceeds the customer charged price of (approximately) $650, Sky will subsidise the difference and pay for a service call to swap to the digital IRD at a later date.

c) When the full MPEG package is available (full - as many as 10 channels but expandable at a future date to as many as 20) pricing will be similar but not identical to the present terrestrial service (approximately $50 a month for the 4.5 channel package). Initially, with only the sport channel available, pricing is likely to be in the (NZ)$25 per month region.

1) One of the new full service channels ~~will~~ Maori be a national Maori channel which will be operated only a portion of the day. During the balance of the day, Sky will use this programme channel to offer a non-Maori ~~channel~~ Service. The logic here is that the highest concentration of Maori speaking people exists in those rural areas where Sky does not presently reach with its UHF transmitters. By offering the Maori channel to these more rural areas they expect to gain a significant sales penetration.

2) When MPEG is operational, something approximating the current 4.5 channel terrestrial package in the $55 - $60 per month region will be available. Additional, new and only available on satellite services (such as the much reported BBC World 24 hours per day) will also be offered but only for additional fees above the "base" price.

5) Cable TV system operators are provided for in the satellite delivery service; SPACE cable system members operating in Gisborne and Greymouth signed up for the satellite feeds December 13th; others have received contracts for signature since that date. The terms of the cable system contracts cannot be released in print (even in this newsletter) since in theory only Sky cable affiliates are supposed to "know" the rates being paid to Sky and these affiliates have agreed in the contract not to divulge the rates to anyone. Suffice to suggest that if a cable system were to offer the Sky channel packages to cable subscribers at the same rate as over the air terrestrial subscribers now pay, the cable operator could still make decent money because he is essentially buying "at wholesale" and reselling "at retail."

Challenge: The analogue package will tolerate "sloppy" installation practices with "signal to burn." Unfortunately, when installers go back to install MPEG IRD if the aerial pointing and polarisation skew is not dead-on, the MPEG portion will have reliability problems. Analogue will encourage semiskilled installers to develop bad habits which will come back as technical problems when MPEG starts up.

Opportunity: Installer/Dealer members should pursue becoming authorised installers of the Sky packages in their region. No official procedure for either qualifying nor the rate of payment has been released by Sky - these are early days still. Contacts: Brian Green (Director of Engineering) and John Fellet (for cable and business relationship discussions) at tel 09-579-9999 and fax 09-525-8324.

MPEG IRD Receiver Status Update

The number of MPEG-2 apparently DVB Compliant digital receivers available in the marketplace will have reached a new "plateau" during the SPACE Pacific SPRSCS '97 show in Auckland. Additional new models are promised over the coming 90 days and we are beginning to see a trend which indicates the logjam for consumer friendly receivers may be breaking up. In other words, the worst seems to be behind us.

The following summary is written prior to SPRSCS '97 and as a result some models promised for the show have not been seen nor tested. You will have the opportunity to witness their performance yourself during the show and we provide some guidelines for you here - important questions to ask when evaluating the various receivers on offer. Note that updates to this material will be found in SatFACTS Monthly.

DMV/NTL: The '3000' model remains the top of the line CATV/SMATV unit available (Skandia Electronics Pty Ltd tel 61-3-9819-2466, fax 61-3-9819-4281). Priced in the A/NZ $4,000 range this receiver has sufficient user selected set-up range to accommodate some of the more difficult to receive FTA services such as STAR TV Asia (on AS2). However, on a scale of operating ease it comes close to the legendary Scientific-Atlanta for complexity (it is not user friendly). Those who might be willing to risk the high cost of this receiver should be aware that the presently receivable STAR Asia services on AS2 will not remain accessible indefinitely and while no firm date for their becoming "conditional access' is known, it is unlikely to be beyond the end of 1997. And if it is STAR Asia you wish, there are less expensive ways of getting there (see Scientific-Atlanta and Nokia to follow).

Grundig: Brought into Australia by Av-COMM Pty Ltd (tel 61-2-9949-7417 and fax 61-2-9949-7095). The Grundig is the Panasat IRD 520 with improved menu operation. The Panasat "parent" unit has proven to be a good performer although as reported in SatFACTS Monthly the first units in July and August were often difficult to get to "lock" and keep locked on an MPEG transmission. More recent units do not seem to display this problem. The assumption is that Grundig, a major German firm, has eliminated whatever problems as the original Panasat may have had and with the benefit of Panasat field experience would be producing a quality receiver.

Nokia: The first 9500 S models to arrive in the Pacific were unfortunately designed with software which only allowed them to function on Ku-band. Direct contact with the factory in Sweden verified that no software field modifications are possible - such European sourced receivers (designed as the 'D Box' for Germany) are totally useless in the Pacific except perhaps for Galaxy reception. The next level of receivers came out of a test run of 100 units built by Nokia (Sweden) for test and evaluation in connection with the European Bouquet AsiaSat 2 service. Virtually all of this 100 test run ended up in Asia and only one is known to SPACE in Australia and another one in New Zealand. This special run (called version 1.63) is not a production item and if Nokia does decide to produce a unit for FTA reception in the Pacific + Asia, it is unlikely to be exactly like this test unit. A decision about the future of a Nokia receiver for this region of the world is scheduled sometime after January 20th.

The 1.63 version has proven to be the most promising of any receivers evaluated to date. It does EBB, NBC Asia, and lesser known services such as WTN and APTV (both As2) with ease; for reasons best known to Nokia, the 1.63 version is not supposed to function on Ku-band. It also locks onto a new Taiwanese 4 programme channel As2 service (Rebar) and apparently will also work with the new Chinese SCPC bouquets currently coming on line on As2.

The one remaining question is whether it will "do PowerVu." Apparently the two units now in the Pacific region will not do this although the As2 Rebar package appears to be conditional access PowerVu and it does lock on them. There is some reason to believe that a software version of the Nokia has been demonstrated "doing PowerVu" in Hong Kong for a potential large lot purchaser there.

In Europe yet another software version (1.719) has been tested doing both C-band and Ku-band with the same type of results the 1.63 version has shown on C-band only in the Pacific. One of the primary features of the Nokia is that it will "search and find" new bouquets for you, and then "file away" the MPEG parameters (Msym, FEC, frequency et al) in its recall memory. This means the user can switch bouquets by selecting memory channels on the remote and is not forced to re-enter new MPEG parameters each time you wish to switch bouquets.

What is missing with Nokia is a commitment to produce a model in quantity that at least does what the limited test run 1.63 version has proven able to do. Pricing of this unit will depend upon the ultimate sources and the availability. For now the Australian sources seem undecided while in New

Zealand Telsat Communications Ltd. (tel 64-6-356-2749, and fax 63-6-355-2141) says they will be handling whatever model Nokia finally decides to release here.

Pace: Brought into the South Pacific by Bay Satellite TV Ltd. (tel 64-6-843-5296 and fax 64-6-843-6429), and OPAC Pty Ltd. (61-2-584-1233 and fax 61-2-584-1452). This unit was originally created for the South African Ku-band pay TV package Multichoice and the built-in menu driven software is factory-specific for this bouquet. Model DVR500 has also been provided to cable TV affiliates by NBC Asia and to motel (SMATV) affiliates for the CNBC service. Used on C-band, the DVR500 works well with the NBC bouquet, the European bouquet and when equipped with the appropriate Galaxy smart card for the Galaxy Ku service in Australia. There have been minimal problems to date with this receiver (a few power supply problems have surfaced - the receiver should not be placed where it will receive heat from other electronic equipment such as an analogue receiver). One design problem which we understand can be software corrected (although the correction information has not yet made its way to the Pacific yet): For Msym rates smaller than 15.000 the receiver's factory standard software will not allow you to "dial in." This means the receiver cannot be used with the new Chinese MPEG-2 services that recently appeared on AsiaSat 2. One more problem which can be very difficult to resolve: DVR500s sold inside of South Africa now routinely have "Parental Control" parameters entered before the receiver leaves the factory. The instruction manual suggests that if you happen to have a Multichoice smart card you can eliminate the parental control lock with the card inserted. Three of these "parental control lock" versions found their way into New Zealand in November and to date all of the smart cards shipped from the factory and all of the information provided cannot clear this lock condition. This means the receivers are totally useless for FTA MPEG-2 service since none of the FTA services (EBB, NBC et al) employ a parental control data stream. The receiver sees this lack of data stream as a glitch and refuses to unlock. The ultimate solution is to return the unit to South Africa - not a pleasant experience.

Panasat: Available through Bay Satellite and OPAC (see Pace listing). This "first generation" receiver has been designed primarily for the same South African Ku-band Multichoice service as the Pace DVR500. As noted, early models were difficult to tame although units received since October have been far more stable in operation. The receiver has proven capable of accessing Galaxy within Australia (and elsewhere) with a legitimate Galaxy smart card (subscription) entered as well as the European Bouquet (EBB), NBC Asia.

Samsung: Virtually nothing is known about this receiver which is expected to be available in limited quantity through Av-COMM Pty Ltd. (see Grundig listing, prior).

Scientific-Atlanta: The D9223 commercial IRD remains the only sure receiver that will access the PowerVu format on MPEG-2. A software version first described in Coop's Technology Digest (August 23, 1995) and more recently in SatFACTS (December 1996, p. 11) has been in the hands of SPACE Member Robin Colquhoun (Auckland) since last July. The "Super PowerVu" of Colquhoun has been software adapted by the owner and now it does access virtually everything in the air including STAR TV Asia on As2. This is, unfortunately, believed to be a one-off unit which combines some software sharing from S-A and Colquhoun's unique abilities to make that software do things which perhaps S-A never intended (SPRSCS '97 attendees are being presented with the opportunity to witness this receiver in operation and to ask questions of Colquhoun during the course of the Auckland industry meeting).

SPACE member Telsat Communications Ltd (see ~~Panasat~~ NOKIA) now says they attempt to keep four of the D9223 units "in stock" at all times which means users in a rush to get EWTN up and operational will no longer have to endure the 4 week+ wait from Scientific Atlanta (Sydney: tel 61-2-9542-3388 and fax 61-2-9451-4432).

The current D9223 receivers being shipped are supposed to have the same basic "Colquhoun software" in them although in the hands of an average user the full capability of this software is unlikely to be realised. The primary general user problem with this receiver is that it must have the new software parameters for each bouquet service entered each time you change services. This is a labour (and skill) intensive operation which the average consumer would never accept. Colquhoun has solved this problem on his own by connecting a computer to the RS232 port on the receiver and using the computer to store the relevant bouquet information for each service. It is unlikely a

consumer would be willing to deal with having a computer tied to the IRD full-time just to change TV programming bouquets.

Skandia SK888: This unit is the first of what we anticipate will be a number of new products with similar (if not identical) features over the first six months of 1997. Skandia was scheduled to handle the long promised (but never delivered) Pace DVB Compliant MPEG-2 version receiver from last June, eventually tired of waiting for Pace to deliver and on their own located a firm in Taiwan (Sun Moon Star) which with the assistance of ex-Thomson engineers was creating a new line of consumer friendly IRDs. The first 100 SK888 receivers arrived in Melbourne in mid-December and quickly disappeared into the consumer marketplace, primarily for viewers of the European Bouquet on AsiaSat 2. The SK888 is factory pre-set for the European Bouquet parameters and comes out of the box ready to turn on and use. It is also capable of receiving the NBC Asia bouquet from PAS-2 (for as long as that bouquet remains free to air) and in theory may also be capable with yet-to-be-seen software of accessing many of the other DVB Compliant MPEG streams now coming into operation.

The second shipment of SK888 units reportedly has an improved low threshold performance (the unit tested by SPACE from the first shipment was on a par with the Pace DVR500 and superior to the Panasat) and a greater resistance to over heating (our test unit did not like being stacked with other electronic equipment, even in an air conditioned room). By the first of February a sizeable quantity of SK888s will be available. Sun Moon Star is "working on" the software in hopes that the SK888 can be made receptive to the numerous other bouquets now coming on line (as well as the pre-existing AsiaSat 2 STAR service bouquet). Source is Skandia Electronics Pty Ltd (tel 61-3-9819-2466, fax 61-3-9819-4281).

EWTN Supports SPACE Program of Open PowerVu Access

SPACE Member Francis Kosmalski (Auckland) may be the first to benefit from a new procedure adopted by the Sydney office of Scientific Atlanta following intervention by SPACE. The scene unfolded as follows:

1) Kosmalski, who first considered purchasing an S-A D9222 receiver one year ago, had held out hoping that Scientific Atlanta would bring out their long-promised "consumer version" PowerVu; a less expensive entry into the ~~wonderful~~ world of digital TV.

2) With the announcement that the Global Catholic Network (EWTN) was to be available on PAS-2 within the Sylmar (California) bouquet most people assumed that since EWTN was to be "gratuitous" and totally free to air that PowerVu receivers would be available to anyone wishing to view EWTN.

Alas, Scientific Atlanta's Sydney office decided differently and began advising new D9223 PowerVu customers they must "first obtain a letter from EWTN authorising them to watch the channel before (S-A) would sell them a receiver." In effect, S-A was going to be a "gatekeeper" for all D9223 sales even when the programmer was totally free to air.

SPACE contacted Sam Ranelli, Marketing Manager for EWTN, and asked his intervention. We explained that burden writing letters for all would-be EWTN viewers would create for the service and argued the letter process could add several weeks delay to customers obtaining the receivers through S-A ("another needless layer of bureaucracy" we said). EWTN agreed with us and on December 17 December wrote a letter to S-A Sydney's Elizabeth Jennison (shown here) at our request.

3) Kosmalski was on the telephone within minutes of our advisory the way was now clear for him to submit his order and S-A accepted the D9223 order with a "late January" delivery date promised. There is one hitch - another example of S-A bureaucracy. They refused to accept Kosmalski's order over the telephone (he wanted to charge it on a credit card) and insisted he send them a letter that included his credit card details. The next hurdle - to talk S-A into acting like millions of other businesses by accepting telephone credit card orders!

(We also urged Kosmalski to obtain a promise from S-A the D9223 he would receive would be 'new-stock' and not a recycled May-June 1996 vintage D9223 which others have received during December ~~(see SatFACTS January 15, 1997, p. X)~~.

The EWTN programming schedule (available from contacts - see below) is a mixture of Roman Catholic teaching, children's basic learning, classical and semi-classical musical features and played with at least a moral message. During periods such as Christmas and Easter there are numerous

special presentations. The production quality is medium to high, the video quality usually excellent and the presentation moderately polished. The target consumer groups for this service would include all of the obvious: Any Catholic church or hall operated by the Catholics, individual families of the faith. EWTN is 24 hours daily, will adopt a Pacific friendly time schedule by around 1 April (the present schedule is parallel to their North American service but in truth is not nearly as out of step with our time zones as many other services).

EWTN contacts: Sam Ranelli, EWTN, 5817 Old Leeds Road, Birmingham, Alabama (USA) 35210-2198. Tel ++205-956-9537, Fax ++205-951-0142. Alternate contacts: C. Cristina Borges.

Project '97: Sharing Satellite Services Over The Air

This project has roots that date back two years. In the (NZ) Snells Beach / Warkworth area a new (UHF) privately owned television station began operation in November; "The Family Television Network." FTN presently transmits 12-14 hours per day and is gradually fattening up its schedule to a late 1997 goal of 24 hours daily. FTN is owned and operated by Integrity Television, a non-profit trust established for the purpose of providing assistance to people in need. The group has a strong religious background but is also deeply rooted in the principals of private business development and self-help.

FTN plans satellite distribution of their service within the next 18 months. Here is the concept:

1) Local groups, following a suggested model developed by FTN, will form local corporations (some may be non-profit, some may be trusts, some may be overtly commercial in design - there are no rules here) and these local corporations will with the assistance of FTN may application to the

regulatory authorities for creation of local UHF TV stations. A typical station would operate with between 10 and 250 watts and cover a region from 10 to 60 kilometres in diameter.

2) Each station will function as a "network affiliate" of FTN and will receive via satellite a schedule of network programming.

Within the FTN schedule there will be two scheduled opportunities for the local community service stations to earn revenue to support their operation:

a) Within each hour of programming there will be a pair of "local announcement" windows. Using automated (tone cue activated) videotape or hard drive playback equipment, when the local announcement time appears the station will automatically cut away from the network satellite feed and a timed local announcement (paid for commercial advertising, sustaining public service announcement) will appear. At the end of the timed insert the station will return to the satellite feed and network programming. All of this can operate unattended as the "local announcements" will be stored and retrieved and rewound all under the guidance of software.

FTN believes a typical station will require around 2 hours of programme supervision time per day to operate unattended the balance of the 24 hour day. This is an important point since it goes directly to the operating costs to maintain the station in a community.

b) Additionally, FTN believes local stations fed via satellite will "grow into" the creation of their own community based programming. The daily 24 hour network schedule will be designed to allow local stations to "pull away from the network" for multiples of 15 minutes each day to play (live or from tape or hard drive) programming created by the affiliate station. FTN further believes that within the programming created by local affiliate stations for local play there will be material which the network as a whole can share (nationally or internationally).

The costs for a ten watt local station fed via satellite and equipped only to relay the FTN satellite fed programming will be in the range of (NZ)$25,000. The addition of "local announcement" ability will add (NZ)$5,000 to the base station cost. Increases in transmission power, addition of local production or studios for creation of community programming will bring the basic costs to as much as (NZ)$150,000 for a station with 60km coverage and full local production capabilities.

The initial capital costs, raised through community find raising or through creation of community corporations with paid-in stockholders, is only a part of the challenge. AN equal challenge is to sustain the station once the initial enthusiasm of getting it on the air has passed. There are two FTN revenue streams planned.

1) Each affiliate station will have the ability to insert locally relevant commercials (advertisements) within each half hour programming block. As previously noted, this will usually be automated with a sub-audible tone transmitted through the satellite link that will start, play, stop and rewind (or re-cue) the tape or hard drive insert material for the next break.

2) Affiliate stations producing programming which is used in total or in part by the network as a whole will be compensated for their programming. In a typical case programming prepared for local use will go on tape or disk to FTN in Snells Beach and be re-edited for use by the full network. In this way each affiliate has an opportunity to be a participant in the creation of network distributed materials and to realise revenue from such programming creations.

To cover satellite time, uplinking costs and programme production costs, FTN at Snells Beach will sell "national advertising" within programme segments and these adverts will run on all affiliated stations. In a typical one hour period there will be 4 minutes of local "avails" time (available for local stations to fill with locally sold adverts) and 4 minutes of national time (sold by FTN - the network - for use within programming by all stations). Thus the total advert load projected is 8 minutes per hour, clustered as 2 minutes every 15 minutes. In a comparison of existing commercial networks, this amounts to a 50% improvement in advertising levels the public now experiences.

Legal Status

Within New Zealand there mechanism for establishing this service is already in place; licensing for accessing one or more satellites is now routine and creation of new UHF broadcasting licenses is an established procedure at the Ministry of Commerce. Interim licenses (permits) to begin broadcasting on a commercial basis normally require approximately 6 months to hand carry through the Ministry of Commerce. These permits are granted subject to the frequency being "auctioned off" in a

subsequent round of general bidding (i.e., you can obtain a temporary permit to use a channel, go on the air, and then later secure 20 year management rights to that channel in the next scheduled round of frequency bidding).

Behind The Scenes

Family Television Network is, as noted, a non-profit trust. The group could be described as "conservative" and "practical" with their feet on the ground. Their Snells Beach TV station has been put together using the latest Sony computer based production equipment and the station has installed three satellite dishes for reception and use of satellite fed programming. At the present time they have programming agreements with Deutsche Welle, MCM, EWTN and others. SPACE member Robin Colquhoun has been instrumental in their dish installs and the station has both analogue and digital receiving gear. Their present coverage area (on channel 60) is limited by terrain to the region north of the Whangaparaoa peninsula and an application to build a UHF translator (repeater) station to serve Orewa and the peninsula region is before the Ministry of Commerce. They also hold a license for a third outlet in the Far North.

The spark plug behind FTN is Trevor Yaxley (pronounced "Axley" with the Y silent). FTN is supplying to SPACE the videotaping personnel and equipment necessary to archive this year's SPRSCS '97 gathering in Auckland. Trevor is a great believer in "one hand helping the other" and would prefer to "swap" equipment or services than become involved in complicated financial dealings. FTN has its roots in the Christian community but should not be confused with a religious operation. Their creed is more one of "moral right" than "religious dogma" and FTN is finding considerable support for its national network plan amongst private business entrepreneurs who share FTN's concerns that television has become "too commercial" and "too much reduced to the lowest common viewing denominator."

Approximately ten community groups have already come forward to register their interest in creating affiliate stations throughout New Zealand. Yaxley is equally anxious to encourage affiliated stations outside of New Zealand proper and believes the satellite feed of the service will make it possible for similar FTN stations to be located throughout the Pacific. FTN also believes that because of the "conservative, morally right" approach to programming they are following that politicians in Pacific Island nations will not find the licensing of such an outlet within their domain objectionable.

Yaxley sees FTN as a mixture of nationally and locally produced programming designed to reflect the moral and family viewing needs of each distinct area. Because individual station affiliates will not only be producing programming but will also serve on a programme selection board, he sees the network as a "bottom - up" rather than a "top - down" operation.

The SPACE Position

There are both business and community involvement opportunities in the FTN plan. First of all there is the creation of each FTN affiliate station - an opportunity for a SPACE member to bring together the leaders in his or her own community to form the necessary infrastructure to make a local station happen. Second there is the obvious need for technical expertise in building the station - a combination of a satellite receiving system and a low power or modest power TV transmitter. Third, there is the day to day operation and maintenance of the station and the opportunity to become station manager for the project. Finally there is the obvious sale of satellite dish receiving systems for people who live in the area of affiliates but beyond direct terrestrial reception range. FTN may not itself be a reason to purchase a home dish system (or it may be - each sale will be different in motivation) but at the very least it will represent another free to air programming source for the viewer.

SPACE has already volunteered considerable time to help FTN with their planning and to ensure that the project is at least on a technically correct track. What individual members can do at this stage is to make themselves known to FTN, visit the Snells Beach/Warkworth facility and talk with Trevor Yaxley (Integrity Communications, PO Box 303, Warkworth; tel 64-9-4250-4054 and fax 64-9-425-6718).